

Marine Licence with introductory note

The Marine and Coastal Access Act (2009)

Licence Holder: Pembrokeshire Coastal
Forum CIC

Company Number 8447094:

**2nd Floor
Pier House
Pembroke Dock
Pembrokeshire
SA72 6TR**

**Marine Energy Test Areas (META) Phase
2 Sites: Warrior Way, Dale Roads and
East Pickard Bay, within and in proximity
to the Milford Haven waterway,
Pembrokeshire.**

Licence Number:

ORML1957v1

**Marine Energy Test Area (META) Phase 2 Sites:
Warrior Way, Dale Roads and East Pickard Bay;
within and in proximity to the Milford Haven
waterway, Pembrokeshire**

Marine Licence number: ORML1957v1

Introductory note

This introductory note does not form a part of the marine licence

The main features of the marine licence are as follows.

Scaled and full-scale marine energy device testing will be enabled at the META project. Testing will not be grid-connected. Testing activities which will be supported at the META project are:

- Scale wave device testing;
- Scale tidal device testing;
- Full scale wave device testing;
- Micro tidal device testing;
- Testing of Remotely Operated Vehicle (ROV) or other monitoring equipment;
- Site preparation methodologies;
- Installation and decommissioning methodologies;
- Salvage methodologies; &
- Tow, float and mooring solution testing for floating offshore wind balance of plant technology.

The status log of the marine licence sets out the marine licence history, including any subsequent marine licence variation(s)

Status log of this marine licence		
Description	Date	Comments
Application	Duly made 19/12/2019	Application received and considered to be duly made
Date licence determined	15/12/2020	Determination date
Licence Variation	25/08/2021	Complex variation to remove Grebe condition (& administrative change to Appendix 1.3 at same time)

The Licence **ORML1957v1** supersedes Licence **ORML1957** in its entirety.

Related marine licences or applications under determination

Marine Licence or Application Number	Date	Comments
<i>DEML1875 (Meta Phase 1) Marine Licence</i>	10/06/2019-09/06/2029	

End of introductory note.

MARINE LICENCE, NUMBER ORML1957v1

1 LICENCE DETAILS

1.1 Marine Licence

This is a licence granted by the Licensing Authority in respect of an application numbered ORML1957v1 and duly made on 04 August 2021 and authorises the Licence Holder to carry on activities for which a licence is required under Part 4 of the Marine and Coastal Access Act 2009, (2009 Act). This licence should be interpreted in accordance with **Section 4**.

1.2 Licence Holder

The Licence Holder is the person or organisation set out below:

Company/Organisation name: Pembrokeshire Coastal Forum CIC

Company number (if available): 8447094

Address: 2nd Floor, Pier House, Pembroke Dock, Pembrokeshire, SA72 6TR

1.3 Licence Validity

Licence Start Date	25 August 2021
Licence End Date	15 December 2035
Licence Issue Date	25 August 2021

1.4 Conditions

This licence is subject to the conditions set out in **Section 3**.

Signed:



For and on behalf of the Licensing Authority

2 LICENSED ACTIVITIES

2.1 Project

Marine Energy Test Area (META) Project Phase 2 Testing areas at Warrior Way, Dale Road and East Pickard Bay.

Scaled and full-scale marine energy device testing will be enabled at the META test sites. Testing activities include:

- Scale wave device testing;
- Scale tidal device testing;
- Full scale wave device testing;
- Micro tidal device testing;
- Testing of Remotely Operated Vehicle (ROV) or other monitoring equipment;
- Site preparation methodologies;
- Installation and decommissioning methodologies;
- Salvage methodologies; &
- Tow, float and mooring solution testing for floating offshore wind balance of plant technology.

The following Licensed Activities can be conducted within the Licence Period, within the Licensed Area and in accordance with the Approved Application and the Approved Supporting Documents.

Table 1 Licensed Activities

Activity 1 - Test operation at Warrior Way Site.	
Type of Licensed Activity	Deposit/Removal/Construction
Description	<p>Testing activities at Warrior Way consisting of;</p> <ul style="list-style-type: none"> • Scaled tidal devices; • Micro tidal devices; • Instruments, components and subassemblies; • ROV or other monitoring equipment; • Site preparation methodologies; • Decommissioning methodologies; and • Salvage methodologies. <p>The works at Warrior Way site must fall within the project envelope parameters for test devices, components and operations for Warrior Way set out in Appendix 1.1.</p> <p>Devices will be towed to site and installed on pre-prepared foundations, moorings, deployed on the seabed, or deployed from a floating platform or test support buoy.</p> <p>Test deployments at Warrior Way will be demarked by up to four navigational marker buoys which will be of standard design.</p>

	The deployment and recovery of Acoustic Doppler Current Profiler (ADCP) and a test support buoy.
Material types to be removed or deposited	As this Project is to allow for testing of marine renewable energy devices, it is currently unknown which exact materials will be used for these test/developmental devices. However; they will be composed of the following: Iron/Steel, Stone/Rock, Concrete, Plastics/Synthetics, Biocides /other chemicals.
Quantities/Dimensions	<p>The works at Warrior Way site must fall within the project envelope parameters for test devices and components and operations for Warrior Way set out in Appendix 1.1.</p> <p>The maximum of one test activity can occur within Warrior Way at any one time.</p> <p>The maximum of 4 testing activities can take place within a 12 month period.</p>

Activity 2 - Test operation at Dale Roads Site	
Type of Licensed Activity	Deposit/Removal/Construction
Description	<p>Testing activities at Dale Roads consisting of;</p> <ul style="list-style-type: none"> - Scaled Wave Energy Converter (WEC) devices; - Full-scale WEC devices; and - Research and monitoring methodologies <p>The works at Dale Roads site must fall within the project envelope parameters for test devices, components and operations for Dale Roads as set out in Appendix 1.2</p> <p>Devices will be towed to site and installed on pre-prepared foundations, moorings, deployed on the seabed, or deployed from a floating platform or test support buoy. Drilled pin-piling or gravity base may be required to install the WEC devices.</p> <p>Test deployments at Dale Roads will be demarked by up to four navigational marker buoys which will be of standard design.</p> <p>The deployment and recovery of Acoustic Doppler Current Profiler (ADCP), wave buoy or similar technology and a test support buoy.</p>
Material types to be removed or deposited	As this Project is to allow for testing of marine renewable energy devices, it is currently unknown which exact materials will be used for these test/developmental devices. However; they will be composed of the following: Iron/Steel, Stone/Rock, Concrete, Plastics/Synthetics, Biocides /other chemicals.

Quantities/Dimensions	<p>The works at Dale Roads site must fall within the project envelope parameters for test devices and components and operations for Dale Roads as set out in Appendix 1.2</p> <p>The maximum of one test activity can occur within Dale Roads at any one time.</p> <p>The maximum of 2 testing activities within a 12-month period.</p>
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Activity 3 - Test operation at East Pickard Bay Site.	
Type of Licensed Activity	Deposit/Removal/Construction
Description	<p>Testing activities at East Pickard Bay consisting of;</p> <ul style="list-style-type: none"> - Full-scale WEC device testing; - Scaled WEC device testing; and - Component testing for floating offshore wind (e.g. floating foundation with integrated wave energy converters. No tower or wind turbine to be utilised). <p>The works at East Pickard Bay site must fall within the project envelope parameters for test devices, components and operations for East Pickard Bay as set out in Appendix 1.3</p> <p>Devices will be towed to site and installed on pre-prepared foundations, moorings, deployed on the seabed, or deployed from a floating platform or test support buoy. Drilled pin-piling or gravity base potentially required to install the Wave Energy Converter (WEC) devices.</p> <p>Test deployments at East Pickard Bay will be demarked by up to four navigational marker buoys which will be of standard design.</p> <p>The deployment and recovery of Acoustic Doppler Current Profiler (ADCP), wave buoy or similar technology and a test support buoy.</p> <p>Rock ballasting may be required for scour protection of devices and their moorings at East Pickard Bay.</p>
Material types to be removed or deposited	<p>As this Project is to allow for testing of marine renewable energy devices, it is currently unknown which exact materials will be used for these test/developmental devices. However; they will be composed of the following: Iron/Steel, Stone/Rock, Concrete, Plastics/Synthetics, Biocides /other chemicals.</p> <p>Any ballasting required for scour protection will be rocks contained in bags.</p>
Quantities/Dimensions	The works at East Pickard Bay site must fall within the project envelope parameters for test devices and components and operations for East Pickard Bay as set out in Appendix 1.3.

	<p>Rock ballasting required for scour protection will be up to 5 tonnes of rock within a bag with a diameter up to 2m. A maximum of 800 tonnes of rock (400 tonnes per device) can be deployed.</p> <p>The maximum of two test activities can occur within East Pickard Bay at any one time.</p> <p>The maximum of 4 testing activities within a 12 month period.</p>
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2.2 Licensed Area

The Licence Holder is authorised to conduct Activity 1 described in Table 1 at the Warrior Way site, in the vicinity of Milford Haven, Pembrokeshire bounded by the coordinates as specified in Table 2:

Table 2 Activity 1 - Warrior Way Site Coordinates

Site name	Latitude	Longitude
Warrior Way	51.70271	-4.91975
	51.70123	-4.92013
	51.70126	-4.92048
	51.70136	-4.92098
	51.70139	-4.92148
	51.70179	-4.92405
	51.70362	-4.92795
	51.70462	-4.92651
	51.70339	-4.92349
	51.70285	-4.92163
	51.70271	-4.91975
	51.70271	-4.91975
	51.70271	-4.91975

The Licence Holder is authorised to conduct Activity 2 described in Table 1 at the Dale Roads site, in the vicinity of Milford Haven, Pembrokeshire bounded by the coordinates as specified in Table 3:

Table 3 Activity 2 - Dale Roads Site Coordinates

Site name	Latitude	Longitude
Dale Roads	51.71376	-5.12132
	51.71005	-5.12103
	51.7099	-5.12792
	51.71363	-5.1281
	51.71376	-5.12132

The Licence Holder is authorised to conduct Activity 3 described in Table 1 at the East Pickard Bay site, in the vicinity of Milford Haven, Pembrokeshire bounded by the coordinates as specified in Table 4:

Table 4 Activity 3 - East Pickard Bay Site Coordinates

Site name	Latitude	Longitude
East Pickard Bay	51.66303	-5.0905
	51.66252	-5.08913
	51.66253	-5.08016
	51.66297	-5.07719
	51.66046	-5.07713
	51.66048	-5.09299
	51.66051	-5.11647
	51.66634	-5.12284
	51.66653	-5.11527

In the event of any discrepancy between the coordinates set out above and the plan attached at Appendix 2, the coordinates shall take precedence.

2.3 Approved Supporting Documents

A full list of the approved submitted supporting documents is presented in Appendix 3.

3 CONDITIONS

Notification and Inspection

3.1 Notification of Commencement

- 3.1.1** The Licence Holder must notify the Licensing Authority no less than **10 days** before the commencement of the Licensed Activities, or an individual phase of the Licensed Activities, is expected to commence.
- 3.1.2** The Licence Holder must notify Welsh Government Marine Enforcement Officers no less than **10 days** before the commencement of the Licensed Activities, or an individual phase of the Licensed Activities, is expected to commence.
- 3.1.3** The Licence Holder must ensure that local mariners and fishermen's organisations are made fully aware of the Licensed Activities through appropriate Notice to Mariners (NTM) **10 days** prior to the commencement of the Licensed Activities.

3.2 Notification of Vessels and/or Vehicles

The Licence Holder must ensure that the details of the vessels utilised to undertake the Licensed Activities are submitted to the Licensing Authority and Marine Enforcement Officers prior to the commencement of the Licensed Activities.

3.3 Notification of Agents/Contractors/Sub-contractors

The Licence Holder must ensure that details of any agent(s), contractor(s) or sub-contractor(s) utilised to undertake the Licensed Activities are submitted to the Licensing Authority prior to the commencement of Licensed Activities.

3.4 Notification of HM Coastguard

The Licence Holder must ensure that HM Coastguard is made aware of the Licensed Activities prior to commencement by contacting The National Maritime Operations Centre at nmoccontroller@hmcg.gov.uk.

3.5 Notification of UK Hydrographic Office

The Licence Holder must notify the UK Hydrographic Office to permit the promulgation of maritime safety information and updating of nautical charts and publications through the national Notice to Mariners system.

3.6 Inspection of Licensed Activities

The Licence Holder must allow officers of the Maritime and Coastguard Agency (MCA), Marine Enforcement Officer or any other person authorised by the Licensing Authority to inspect the Licensed Activities at any reasonable time.

3.7 Notification of Completion

The Licence Holder must notify the Licensing Authority and authorised Marine Enforcement Officers within **10 days** of completion of the Licensed Activities.

3.8 Force Majeure

If, by reason of force majeure any substances or articles are deposited otherwise than as permitted as part of the Licensed Activities or in the Licensed Area full details of the circumstances shall be notified to the Licensing Authority within **48 hours** of the incident occurring.

3.9 Distribution of Copies of this Licence

The Licence Holder is required to ensure that a copy of this licence, and any subsequent revisions or amendments thereto is given to:

- All agents, contractors and subcontractors whose names have been provided to the Licensing Authority pursuant to condition 3.3; and
- The Masters of any vessels and transport managers responsible for the vehicles and/or vessels employed in the pursuance of this licence whose details have been submitted to the Licensing Authority pursuant to condition 3.2.

3.10 Inspection of Documents

Copies of this Licence shall be made available at the following locations:

- at the address of the Licence Holder specified in section 1.2;
- at any site office, located at or adjacent to the Licensed Area, used by the Licence Holder or its agent(s), contractor(s) or sub-contractor(s) responsible for the loading transportation or deposit of any substances or articles permitted as part of the Licensed Activities; &
- on board each vessel, vehicle or at the office of any transport manager with responsibility for vehicles from which any deposits of materials authorised by this licence are to be made.

The documents referred to in this condition shall be available at all times when the Licensed Activities are being undertaken for inspection by officers appropriately authorised by the Licensing Authority and authorised Marine Enforcement Officers at the locations stated in this paragraph.

Vessels, Plant and Equipment

3.11 Notified Contractors, Vessels only to Carry out Licensed Activities

Only those agent(s), contractor(s) or sub-contractor(s) vessels whose details have been notified to the Licensing Authority may operate under the terms of this licence. Any changes must be notified to and be approved by the Licensing Authority in writing prior to any such agent, contractor, subcontractors or vehicles carrying out any Licensed Activities pursuant to or otherwise operating under this licence.

3.12 Standard of Vessels

Any vessels employed to perform the any operations permitted by this licence shall be so constructed and equipped as to be capable of the proper performance of these operations.

3.13 Refuelling

The Licence Holder must ensure that plant, vehicles and machinery are not refuelled on the foreshore.

Safety

3.14 Safety of Licensed Activities

The Licence Holder must ensure that the Licensed Activities are maintained in a safe condition that does not represent a danger to the environment, or other marine users, at all times. Floating devices and any devices suspended in the water column must have a third-party verification of the mooring arrangements prior to construction to provide assurance against loss of station.

3.15 Navigation

The Licence Holder must submit a device layout plan to the Licensing Authority for written approval at least **8 weeks** prior to deployment of multiple devices at East Pickard Bay. Deployment/operation of multiple devices simultaneously at East Pickard Bay cannot take place prior to written agreement from the Licensing Authority.

The Licence Holder must ensure that any actions outlined in the Device Layout Plan are implemented as approved in writing by the Licensing Authority. Any proposed changes to the actions outlined in the documents must be submitted to, and agreed in writing with the Licensing Authority prior to any changes being enacted.

The Licence Holder must submit a device-specific Navigational Risk Assessment (NRA) for written approval at least **8 weeks** prior to any deployment operation. This NRA must propose appropriate device-specific risk controls. No deployment may be undertaken prior to written agreement from the Licensing Authority.

The Licence Holder must ensure that any actions outlined in the Navigational Risk Assessment are implemented as approved in writing by the Licensing Authority. Any proposed changes to the actions outlined in the documents must be submitted to, and agreed in writing by the Licensing Authority prior to any changes being enacted.

3.16 Safety of recreational users

The Licence Holder must implement a strategy for raising awareness of the risks concerning power generating structures. The strategy must include;

- Notice must be given to all recreational users via notices to mariners, website, club notifications, stakeholder mailing list, before any deployment or salvage of a device or structure;
- Safety information/ warnings must be provided on access points, deployed structures and where appropriate on navigation marks to the East Pickard Way site;

- Safety information/ warnings (e.g. signage, leaflets) must be provided at recreational access points (e.g. slipways, boat clubs). This could be incorporated into existing navigation safety advice provided by the port.
- The strategy should also incorporate the measures detailed within Table 10-2 Possible Additional Risk Controls of the NRA (ORML1957- META Appendix 12.1 Navigational Risk Assessment v1 submitted 12/12/19- refer Appendix 3).

3.17 Emergency Response Co-operation Plans (ERCoP)

The Licence Holder must submit a META Project ERCoP for written approval at least **8 weeks** prior to the commencement of any Licenced Activity. No Licensed Activities may be undertaken prior to written agreement from the Licensing Authority authorising this Project ERCoP.

The Licence Holder must ensure that any actions outlined in the Project ERCoP are implemented as approved in writing by the Licensing Authority. Any proposed changes to the actions outlined in the documents must be submitted to, and agreed in writing by the Licensing Authority prior to any changes being enacted.

The Licence Holder must also submit device-specific ERCoP for written approval at least **8 weeks** prior to any device deployment operation. This ERCoP must propose appropriate device-specific risk controls. No deployment may be undertaken prior to written agreement from the Licensing Authority, authorising the device-specific ERCoP.

The Licence Holder must ensure that any actions outlined in the device-specific ERCoP are implemented as approved in writing by the Licensing Authority. Any proposed changes to the actions outlined in the documents must be submitted to, and agreed in writing by the Licensing Authority prior to any changes being enacted.

3.18 Removal of Deposited Material

The Licence Holder must remove any deposited material within one month of notice being given by Licensing Authority or Marine Enforcement Officers if they consider this necessary or advisable for the safety of navigation, and not shall not replace such material until the Licensing Authority or Marine Enforcement Officers have given their written approval.

3.19 Government Assistance

If, in the opinion of the Licensing Authority or Marine Enforcement Officers, the assistance of a Government Department, including the broadcast of navigational warnings, is required in connection with the Licensed Activities or to deal with any emergency arising from the drifting or wreck of the Licensed Activities, the Licence Holder will be liable for any expense incurred in securing such assistance.

Pollution control

3.20 Pollution Prevention

The Licence Holder must submit a Project Environmental Management Plan (PEMP) to the Licensing Authority for written approval at least **3 months** prior to

commencement of any Licensed Activity. The PEMP must incorporate proposed mitigation identified within the ES and must also ensure that pollution prevention best practice will be adhered to as well as considering the potential impact on bathing water. No Licensed Activities may be undertaken prior to written agreement from the Licensing Authority.

The Licence Holder must ensure that any actions outlined in the PEMP are implemented as approved in writing by the Licensing Authority. Any proposed changes to the actions outlined in the documents must be submitted to, and agreed in writing by the Licensing Authority prior to any changes being enacted.

The Licence Holder must also submit device-specific Environmental Management Plans (EMP) to the Licensing Authority for written approval at least **3 months** prior to device deployment. The device-specific EMP must incorporate proposed mitigation as identified within PEMP and must also ensure that pollution prevention best practice will be adhered to as well as considering the potential impact on bathing water. No Licensed Activities may be undertaken prior to written agreement from the Licensing Authority.

The Licence Holder must ensure that any actions outlined in the device-specific EMP are implemented as approved in writing by the Licensing Authority. Any proposed changes to the actions outlined in the documents must be submitted to, and agreed in writing by the Licensing Authority prior to any changes being enacted.

The Licence Holder must ensure that pollution prevention best practice is adhered to at all times. Any incidents must be reported to the Licensing Authority as soon as possible using the hotline number **0300 065 3000**.

3.21 Spillage of Pollutants

The Licence Holder must ensure bunding, storage facilities and spill kits are employed where appropriate to contain and prevent the release of fuel, oils and chemicals associated with the plant, refuelling and construction equipment into the marine environment.

3.22 Coatings

The Licence Holder must ensure that any coatings/treatments used in carrying out the Licensed Activities are suitable for use in the marine environment and are used in accordance with best environmental practice.

3.23 Prevention of Disposal of Man-made Debris

The Licence Holder must ensure that all reasonable precautions are taken to prevent the disposal of man-made debris to the marine area. Such material must be removed immediately and be disposed of appropriately. If it is not possible to prevent man-made debris from entering the marine environment during the Licensed Activities, the Licensed Activities must cease immediately.

3.24 Biosecurity

3.24.1 The Licence Holder must ensure all equipment, materials, machinery and Personal Protective Equipment used as part of the Licensed Activities should

be thoroughly washed and air dried before deployment and thereafter before moving between locations to minimise risk of introducing non-native species into the marine environment.

- 3.24.2** An Invasive Non-Native Species Management Plan (INNSMP) for the Project is submitted to the Licensing Authority for written approval a minimum of **8 weeks** prior to the commencement of works. No Licensed Activities may be undertaken prior to written agreement from the Licensing Authority.

The Licence Holder must ensure that any actions outlined in the INNSMP are implemented as approved in writing by the Licensing Authority. Any proposed changes to the actions outlined in the INNSMP must be submitted to and agreed in writing by the Licensing Authority prior to any changes being enacted.

- 3.24.3** The Licence Holder must submit an updated INNSMP to the Licensing Authority for written approval by the **31 January** each year, starting **January 2022**.

3.25 Dropped Objects

Should it be necessary for the Licence Holder to recover or remove from the Licensed Area any equipment, plant or machinery accidentally dropped when undertaking the Licensed Activities, the Licence Holder is permitted to do so provided that the methodology for such recovery or removal has been approved by the Licensing Authority.

Activity-specific Conditions

- 3.26** The Licence Holder must ensure that all works at each site are in accordance within the project envelope parameters detailed in Appendix 1.
- 3.27** The Licence Holder must submit a Project Environmental Mitigation and Monitoring Plan (EMMP) to the Licensing Authority for written approval prior to commencement of the Licensed Activity. The EMMP must incorporate proposed mitigation for the META Project identified as part of the EIA process. No Licensed Activities may be undertaken prior to written agreement from the Licensing Authority. Any proposed changes to the actions outlined in the EMMP must be submitted to and agreed in writing by the Licensing Authority prior to any changes being enacted.
- 3.28** The Licence Holder must submit a device specific pre-deployment monitoring plan to the Licensing Authority for written approval prior to any deployment operation. The plan should consider;
- Requirement for pre-deployment benthic survey to inform micro-siting.
 - Requirement for archaeological survey.
 - Requirement for suspended sediment plume monitoring at Dale Roads site and at all sites where sea bed levelling and/or clearance is required.

- 3.29** The Licence Holder must submit a monitoring report following completion of any surveys detailed within the pre-deployment monitoring plan (3.28) to the Licensing Authority at least **3 months** prior to commencement of activities.
- 3.30** The Licence Holder must submit a Device-specific Installation and Operation Method Statement (DIOMS) to the Licensing Authority for written approval. The DIOMS must detail how all the Project EMMP requirements (condition 3.27) have been incorporated and consider:
- Review of device design (for minimisation of ingress for WEC devices, minimum blade clearance at Warrior Way and maximum dimension devices (triggering further monitoring requirements) at East Pickard Bay)
 - Collision risk/entanglement protocols
 - Decommissioning

Works must be carried out in line with the approved DIOMS. Any proposed changes to the DIOMS must be submitted to and agreed in writing by the Licensing Authority prior to any changes being enacted.

- 3.31** The Licence Holder must ensure that any archaeological deposits or artefacts discovered throughout the installation, operation and decommissioning phases of the Project are to be reported through the Offshore Renewables Protocol for Archaeological Discoveries Implementation Service. To ensure accurate records are maintained for archaeological finds and to inform future deployments.

4 INTERPRETATION

In this Licence terms are as defined in section 115 of the Marine and Coastal Access Act unless otherwise stated.

- (a) **"2009 Act"** means the Marine and Coastal Access Act 2009;
- (b) **"Approved Application"** means the Marine Licence Application Form together with the Approved Supporting Documents;
- (c) **"Approved Supporting Documents"** means the documents supporting, or supplementary to, the Approved Application, submitted prior to the Licence Issue Date, listed in the Table at paragraph 2.3 above;
- (d) **"Commencement"** means the first undertaking of any Licensed Activities;
- (e) **"Force majeure"** may be deemed to apply when, due to stress of weather or any other cause, the master of a vessel determines that it is necessary to deposit the substances or articles because the safety of human life and/or of the vessel is threatened;
- (f) **"Licensed Activities"** means the activities authorised by this licence as specified in 2.1;
- (g) **"Licensed Area"** means the area within which Licensed Activities are authorised by this licence as specified in section 2.2;
- (h) **"Licence Holder"** means the person(s) or organisation(s) named in section 1.2 to whom this licence is granted;
- (i) **"Licence Period"** means the period beginning with the Licence Start Date and ending on the Licence End Date;
- (j) **"Licensing Authority"** means Natural Resources Wales acting on behalf of the Welsh Ministers;
- (k) **"Marine Enforcement Officers"** means the relevant officers appointed by Welsh Ministers under section 235 of the 2009 Act, contact details for whom are provided in section 5;
- (l) **"Marine Licence Application Form"** means the application form forming part of the application referred to in paragraph 1.1;

- (m) **“Method Statement”** means the Method Statement(s) forming part of the Approved Application or Approved Supporting Documents;
- (n) **“Works”** means any construction activities comprised in the Licensed Activities and, where the context permits, includes any plant, equipment or materials used to carry out those activities or operations but excludes monitoring, minor routine maintenance or other ongoing operational activities following completion of any construction activities;
- (o) all times shall be taken to be the time in Greenwich Mean Time (GMT) on any given day;
- (p) all co-ordinates shall be taken to be latitude and longitude in decimal degrees to 5 decimal places (WGS84/UTM zone 30 N).
- (q) in the event of any discrepancy between the coordinates listed in paragraph 2.2 and the plan attached at Appendix 1, the coordinates shall take precedence.

5 CONTACTS

Except where otherwise indicated, the primary point of contact with the Licensing Authority and the address for returns, correspondence and requests for variations of the licence is:

Marine Licensing Team
Natural Resources Wales
Permitting Service
29 Newport Road
Cambria House
Cardiff
CF24 0TP

Email: marinelicensing@naturalresourceswales.gov.uk

Welsh Government Marine Enforcement Officers may be contacted at:

Welsh Government
Suite 3
Cedar Court
Haven's Head Business Park
Milford Haven Pembrokeshire
SA73 3LS

Tel: 03000 253500
Email: wfmccmpc@gov.wales

APPENDICES

Appendix 1: Project Parameters

Appendix 1.1: Warrior Way testing activity characteristics

Warrior Way	
Project detail	Maximum Project Envelope
Position in water column	Tidal components are likely to occupy all or part of the water-column. There will be a minimum clearance of 2m between any rotating blades and the sea-surface.
Dimensions	20m x10m
Rotor Diameter (tidal only)	≤ 5m
Swept area (tidal only)	19.63m ²
Height above surface	<2m
Number of devices/tests that can be supported	1 device/test at any one time (i.e. no other testing/deployment/retrieval or other operation for another device/test may be undertaken during this period)
Sea-surface area per device/component	≤ 200m ²
Proportion of devices touching the seabed	50%
Seabed footprint per device/component (where devices or component touches the seabed)	≤ 200m ²
Speed of moving parts	≤ 5m/s
Buffer area of seabed clearance required around testing area (where device or component touches the seabed)	5m strip around device seabed footprint
Lubricants and antifoulants	Any antifoulants or lubricants used will be EU/internationally approved for marine environments.
Mooring/attachment method	Up to 4 drag anchors with associated slack lines, catenary mooring system. Gravity base may be required here (maximum area up to 25m ²) but no pin piling will be carried out at Warrior way
Mooring spread per test	150m ²
Warrior Way deployment and retrieval characteristics	
Number of vessels utilised in deployment and retrieval operations at any one time (including guard boat if required)	≤ 5
Frequency of deployment and retrieval vessel support operations in a 12-month period (vessel movements only)	≤ 20 test deployments and 20 retrieval vessel movements in a 12-month period (including redeployments as necessary).
Vessel mooring spread for installation and decommissioning activities	150m ²
Warrior Way Operation and Maintenance (O&M) characteristics	
Moored/gravity base deployment duration (estimated percentage (%) time device in water provided within brackets)	6 months (100%)
Number of testing activities in a 12-month period	4
Frequency of O&M visits	≤ 104 vessel visits in a 12-month period.
No. of vessels utilised in O&M at any one time (including guard boat if required)	≤ 5

Appendix 1.2: Dale Roads testing activity characteristics

Dale Roads	
Project detail	Maximum Scenario
Position in water column	Wave component testing may occupy a significant proportion of the water column and may include surface-piercing.
Dimensions	30m (L) x 20m (W)
Height above surface	2m
Number of testing activities	1
Sea-surface area per device/component	$\leq 200\text{m}^2$
Proportion of devices touching the seabed	50%
Seabed footprint per device/component (where devices or component touches the seabed)	$\leq 600\text{m}^2$
Buffer area of seabed clearance required around testing area (where device or component touches the seabed)	5m strip around device seabed footprint
Pin piles	≤ 4 drilled pin piles per device. Each pin pile up to 100mm in diameter installed to a depth of 10-20m
Lubricants and antifoulants	Any antifoulants or lubricants used will be EU/internationally approved for marine environments.
Mooring/attachment method	Up to 10 drag anchors with associated slack lines, catenary mooring system. Gravity base may be required here (maximum area up to 500m^2 within the seabed footprint per device/component). Pin piling may be required- see above.
Mooring spread per test	200m^2
Bird and fish ingress to wave devices	Potential for bird and fish ingress to wave devices will be minimised through device design.
Dale Roads deployment and retrieval characteristics	
Number of vessels utilised in deployment and retrieval operations at any one time (including guard boat if required)	≤ 5
Frequency of deployment and retrieval vessel support operations in a 12-month period	≤ 20 test deployments and 20 retrieval vessel movements in a 12-month period.
Vessel mooring spread for installation and decommissioning activities	200m^2
Dale Roads Operation and Maintenance (O&M) characteristics	
Moored/gravity base deployment duration (estimated percentage (%) time device in water provided within brackets)	12 months (100%)
Number of moored/gravity base deployments in a 12-month period	2
Frequency of O&M visits	≤ 104 vessel visits in a 12-month period.
No. of vessels utilised in O&M at any one time (including guard boat if required)	≤ 5

Appendix 1.3: East Pickard Bay testing activity characteristics

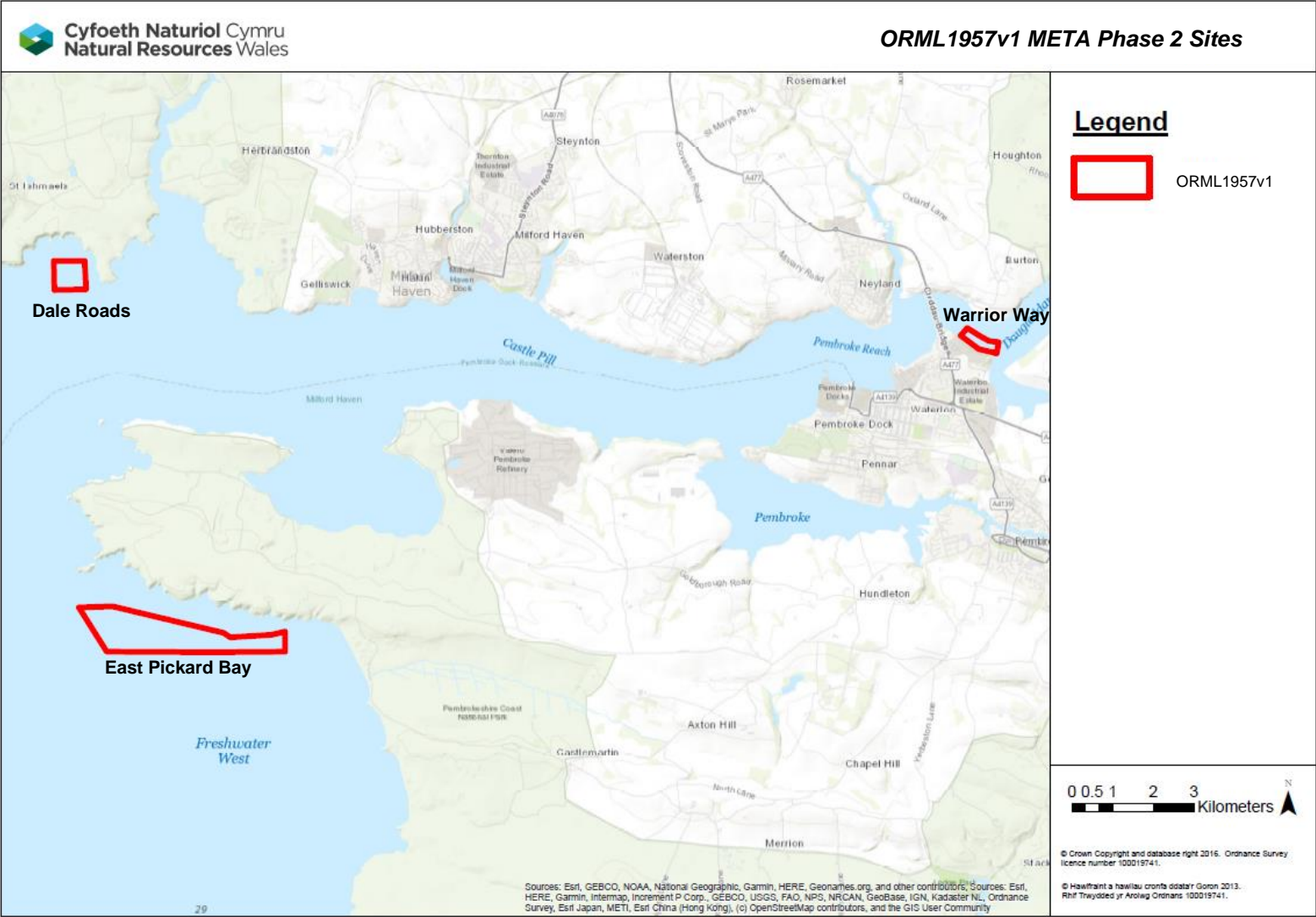
East Pickard Bay	
Project detail	Maximum Scenario
Position in water column	Wave device testing may occupy a significant proportion of the water column and may include surface-piercing, at surface and sub-surface components.
Dimensions	147m (L) x 230m (W)
Height above surface	≤15m
Number of devices deployed in a 12-month period at each berth.	2
Proportion of devices touching the seabed	50%
Seabed footprint per device/component (where devices or component touches the seabed)	≤ 8,000m ²
Seabed footprint (where devices or component touches the seabed) for multiple activity testing	10,250m ²
Sea surface area required for testing	33,810m ²
Buffer area of seabed clearance required around testing area (where device or component touches the seabed)	10m strip around device seabed footprint
Pin piles	≤ 4 drilled pin piles per device. Each pin pile up to 100mm in diameter installed to a depth of 10-20m
Lubricants and antifoulants	Any antifoulants or lubricants used will be EU/internationally approved for marine environments.
Mooring/attachment method	Up to 3 catenary mooring system (120°separation) or up to 10 standard drag embedment anchors. Gravity base may be required here (maximum area up to 1125m ² within the seabed footprint per device/component). Pin piling may be required- see above.
Mooring spread per test activity	500m x 500m (250 000m ²)
Total mooring spread for multiple testing activities	500,000m ²
Bird and fish ingress to wave devices	Potential for bird and fish ingress to wave devices will be minimised through device design.
East Pickard Bay deployment and retrieval characteristics	
Number of vessels utilised in deployment and retrieval operations at any one time (including guard boat if required)	≤ 5
Frequency of deployment and retrieval vessel support operations in a 12-month period	≤ 40 test deployments and 40 retrieval vessel movements in a 12-month period.
Mooring spread if required for deployment and retrieval activities	400m x 300m (120,000m ²)
East Pickard Bay Operation and Maintenance (O&M) characteristics	
Duration of tow testing activity (estimated % time device in water given in brackets)	≤ 3 months (50%)
Number of tow tests in a 12-month period	2
Moored/gravity base deployment duration (estimated percentage (%) time device in water provided within brackets)	18 months (100%)

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Number of moored/gravity base deployments per test berth in a 12-month period	2
Total number of moored/gravity base deployment in a 12-month period	4
Frequency of O&M visits	≤ 150 vessel visits in a 12-month period.
No. of vessels utilised in O&M at any one time (including guard boat if required)	≤ 5

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Appendix 2: ORML1957v1 Licensable Area



Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors. Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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Appendix 3: Full list of submitted supporting documents

Title/Description of Document	Date	Version No.
ORML 1957- META application submission email	12/12/19	1
ORML1957- Marine Licence Application Form	12/12/19	1
ORML 1957- EoR0730_T_190516_Phase 2 Coordinates	12/12/19	2
ORML1957 Application supporting document shapefile	08/01/20	1
ORML1957- Marine Works Licence MWL application forms	12/12/19	1
ORML1957- META NTW Welsh	12/12/19	1
ORML 1957 META NTA	12/12/19	1
ORML1957- Chapter 1 META Introduction	12/12/19	1
ORML1957- Chapter 2 META Project Description	18/12/19	2
ORML 1957- Chapter 3 META Need and Alternatives	12/12/19	1
ORML 1957- Chapter 4 META Environmental Assessment Methodology	12/12/19	1
ORML1957- Meta Chapter 5 Coastal Processes	18/12/19	2
ORML 1957- Chapter 6 META Underwater noise	13/12/19	1
ORML 1957- Chapter 7 META Benthic Subtidal and Intertidal Ecology	13/12/19	1
ORML 1957- Chapter 8 META Fish and Shellfish	13/12/19	1

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Title/Description of Document	Date	Version No.
ORML1957 Chapter 9 META Marine Mammals, Basking Shark and Otter	18/12/19	2
ORML1957 Chapter 10 META Marine Ornithology	18/12/19	2
ORML1957 Chapter 11 META Commercial Fisheries	18/12/19	2
ORML1957 Chapter 12 META Shipping & Navigation	18/12/19	2
ORML 1957- Chapter 13- META Marine Archaeology	12/12/19	1
ORML 1957- Chapter 14 META ES Seascape	12/12/19	1
ORML1957- Chapter 15 META Socio-Economic	12/12/19	1
ORML1957- Chapter 16 META Other Users	18/12/19	2
ORML 1957- META Appendix 1.1- Statement of Experience	12/12/19	1
ORML 1957- META Appendix 1.2- Statement of Community Engagement	12/12/19	1
ORML 1957 META Appendix 2.1- Summary of Device Types	12/12/19	1
ORML 1957- META Appendix 3.1- Policy and Legislation	12/12/19	1
ORML 1957- META Appendix 4.1-4.3 Environmental Assessment Methodology	12/12/19	1
ORML 1957- Meta Appendix 7.1- Benthic Ecology	12/12/19	1
ORML1957- META Appendix 8.1- Fish and Shellfish Survey Data	12/12/19	1
ORML 1957- META Appendix 9.1-9.2- Marine Mammals, Basking Shark and Otter	12/12/19	2
ORML1957-META Appendix 10.1 META Ornithological Baseline Report- REDACTED 12/12/19.	12/12/19	2

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Title/Description of Document	Date	Version No.
ORML 1957 META Appendix 11.1-Commercial Fisheries	12/12/19	1
ORML 1957- META Appendix 12.1- Navigational Risk Assessment	12/12/19	1
ORML 1957-META Appendix 13.1- Marine Archaeology	12/12/19	1
ORML1957- META Water Framework Directive Assessment	12/12/19	1
ORML 1957 WNMP Policy Review	08/01/20	1
ORML1957- META HRA report to inform appropriate assessment (RIAA)	12/12/19	1
ORML 1957- HRA-RIAA Appendices	12/12/19	1
ORML 1957- META Environmental Management Plan	12/12/19	1
ORML 1957- EOR0730 META Environmental Mitigation & Monitoring Plan	12/12/19	1
ORML1957- EOR0730 META INNSMP	12/12/19	1
ORML 1957 META Phase 2 Clarification Report REV03 Final	08/06/20	3
ORML 1957 META Second clarification response	05/08/20	1